WHAT IS CLAIMED IS:

1.   A flash driver system, comprising:

a free sector manager, configured to determine a next free physical sector address on the media and assign the address to a logical sector address of a write request received from a file system;

a table, configured to store a map showing the assignment of the physical sector address to the logical sector address; and

a flash medium logic, configured to write the data to the next free physical sector indicated by the free sector manager and store the logical sector address directly with the data on the flash memory medium.

2.   The flash driver as recited in claim 1, further comprising a flash abstraction logic, configured to scan the sectors of the flash memory medium for the logical sector address and note the physical sector address from which the logical sector address is stored and reestablish the map in the table in the event the table is erased.

3.   The flash driver as recited in claim 1, wherein the logical sector address is stored in a spare portion of the flash memory medium.

4.   A flash driver system, comprising:

a free sector manager, configured to determine a next free physical sector address available on the flash memory medium;

a flash abstraction logic, configured to query the free sector manager for the next free physical sector address and link the physical sector address to a logical sector address received from a file system; and

a table, configured to store the physical sector address to logical sector address linking performed by the flash abstraction logic.

5.   The flash driver system as recited in claim 4, wherein the flash abstraction logic is further configured to mark an existing physical sector as dirty, if a logical sector address received from the file system was previously linked to the logical sector address in the table.

6.   The flash driver system as recited in claim 4, wherein the flash abstraction logic is further configured to mark an existing physical sector as dirty, if a logical sector address received from the file system was previously linked to the logical sector address in the table, but only after data associated with the logical sector address is successfully written to a new physical sector address on the flash memory media.

7.   The flash driver system as recited in claim 4, wherein a portion of a physical sector is a status bit configured to indicate when a write operation is in progress.

8.   The flash driver system as recited in claim 4, wherein a portion of physical sector is a status bit configured to indicate when a write operation has been completed successfully.

9.   A memory device comprising:

        a free sector manager to determine a next free physical sector address on a flash memory medium and to assign the physical sector address to a logical sector address; and

        an assignment map to store data corresponding to the physical sector address to the logical sector address assignment,

        wherein the next free physical sector accepts data without requiring to be erased first.

10.   A memory device as recited in claim 9, wherein the free sector manager assists in evenly wearing the flash memory medium by not requiring a same physical sector to be erased repeatedly prior to other available physical sectors of the flash memory medium.

11.   A memory device as recited in claim 9, wherein a write request provides the logical sector address.

12.   A memory device as recited in claim 9, wherein a write request received from a file system provides the logical sector address.

13.   A memory device as recited in claim 9, wherein the assignment map is stored in a table.

14.   A memory device as recited in claim 9, wherein the logical sector address is stored in a spare portion of the flash memory medium.

15.   A memory device as recited in claim 9, wherein the flash memory medium is a memory medium selected from a group comprising a NAND flash memory medium and a NOR flash memory medium.

16.   A memory device as recited in claim 9, further comprising a flash medium logic to write received data to the next free physical sector indicated by the free sector manager.

17.   A memory device as recited in claim 9, further comprising a flash medium logic to store the logical sector address on the flash memory medium.

18.   A memory device as recited in claim 9, further comprising a flash abstraction logic to scan one or more sectors of the flash memory medium for the logical sector address and note the physical sector address from which the logical sector address is stored and reestablish the assignment map in the event the assignment map is erased.

19.   A memory device as recited in claim 9, further comprising a flash abstraction logic to scan one or more blocks of the flash memory medium for the logical sector address and note the physical sector address from which the logical sector address is stored and reestablish the assignment map in the event the assignment map is erased.

20.   A method comprising:

        determining a next free physical sector address on a flash memory medium;

        assigning the physical sector address to a logical sector address; and

        generating an assignment map of data corresponding to the physical sector address to the logical sector address assignment,

        wherein the next free physical sector accepts data without requiring to be erased first.

21.   A method as recited in claim 20, wherein a write request provides the logical sector address.

22.   A method as recited in claim 20, wherein a write request from a file system provides the logical sector address.

23.   A method as recited in claim 20, further comprising evenly wearing the flash memory medium by not requiring a same physical sector to be erased repeatedly prior to other available physical sectors of the flash memory medium.

24.   A method as recited in claim 20, further comprising storing the assignment map in a table.

25.   A method as recited in claim 20, further comprising storing the logical sector address in a spare portion of the flash memory medium.

26.   A method as recited in claim 20, wherein the flash memory medium is a memory medium selected from a group comprising a NAND flash memory medium and a NOR flash memory medium.

27.   A method as recited in claim 20, further comprising writing data to the next free physical sector.

28.   A method as recited in claim 20, further comprising storing the logical sector address on the flash memory medium.

29.   A method as recited in claim 20, further comprising:

scanning one or more sectors of the flash memory medium for the logical sector address;

noting the physical sector address from which the logical sector address is stored; and

reestablishing the assignment map in the event the assignment map is erased.

30.   A method as recited in claim 20, further comprising:

scanning one or more blocks of the flash memory medium for the logical sector address;

noting the physical sector address from which the logical sector address is stored; and

reestablishing the assignment map in the event the assignment map is erased.

31. One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 20.

32. An apparatus comprising:

means for determining a next free physical sector address on a flash memory medium;

means for assigning the physical sector address to a logical sector address; and

means for generating an assignment map of data corresponding to the physical sector address to the logical sector address assignment.

33. An apparatus as recited in claim 32, wherein the next free physical sector accepts data without requiring to be erased first.

34. An apparatus as recited in claim 32, further comprising means for storing the assignment map in a table.

35. An apparatus as recited in claim 32, further comprising means for storing the logical sector address in a spare portion of the flash memory medium.

Patent Application

36.   An apparatus as recited in claim 32, further comprising means for writing data to the next free physical sector.

37.   An apparatus as recited in claim 32, further comprising means for storing the logical sector address on the flash memory medium.

38.   An apparatus as recited in claim 32, further comprising means for reestablishing the assignment map in the event the assignment map is erased.